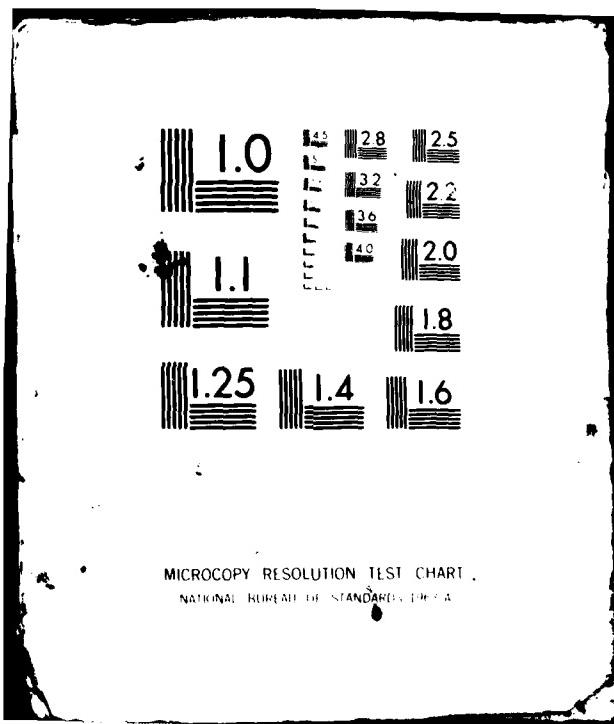


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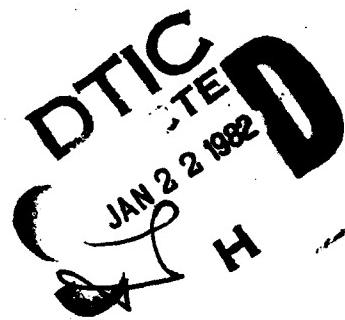
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METEOROLOGICAL DATA REPORT

14818B Lance
Missile Number 4576
Round Number 370-APT
December 6, 1981

by

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Program Support Coordinator
Phone Number (505) 679-9568
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ATMOSPHERIC SCIENCES LABORATORY
WHITE SANDS MISSILE RANGE, NEW MEXICO

410663

ECON 0120 82031
UNITED STATES ARMY ELECTRONICS COMMAND

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Meteorological data gathered for the launching of the 14818B Lance, Missile Number 4576, Round Number 370-APT presented in tabular form.	4		

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INTRODUCTION

14818B Lance, Missile Number 4576, Round Number 370-APT, was launched from LC-39, White Sands Missile Range (WSMR), New Mexico, at 1221:34 MST, 6 Nov 1981. The scheduled launch time was 1145 MST.

DISCUSSION

Meteorological data were recorded and reduced by the White Sands Meteorological Team, Atmospheric Sciences Laboratory (ASL), White Sands Missile Range, New Mexico. The data were obtained by the following methods:

1. Observations.

a. Surface:

(1) Standard surface observations to include pressure, temperature ($^{\circ}\text{C}$), relative humidity, dew point ($^{\circ}\text{C}$), density (gm/m^3), wind speed and direction, and cloud cover were made at the LC-39 Met Site at T-0 minutes.

(2) Monitor of wind speed and direction was provided in the launch control room.

b. Upper Air:

(1) Low level wind data were obtained from Nike-Herc radar tracked pilot-balloon observations at:

SITE AND ALTITUDE

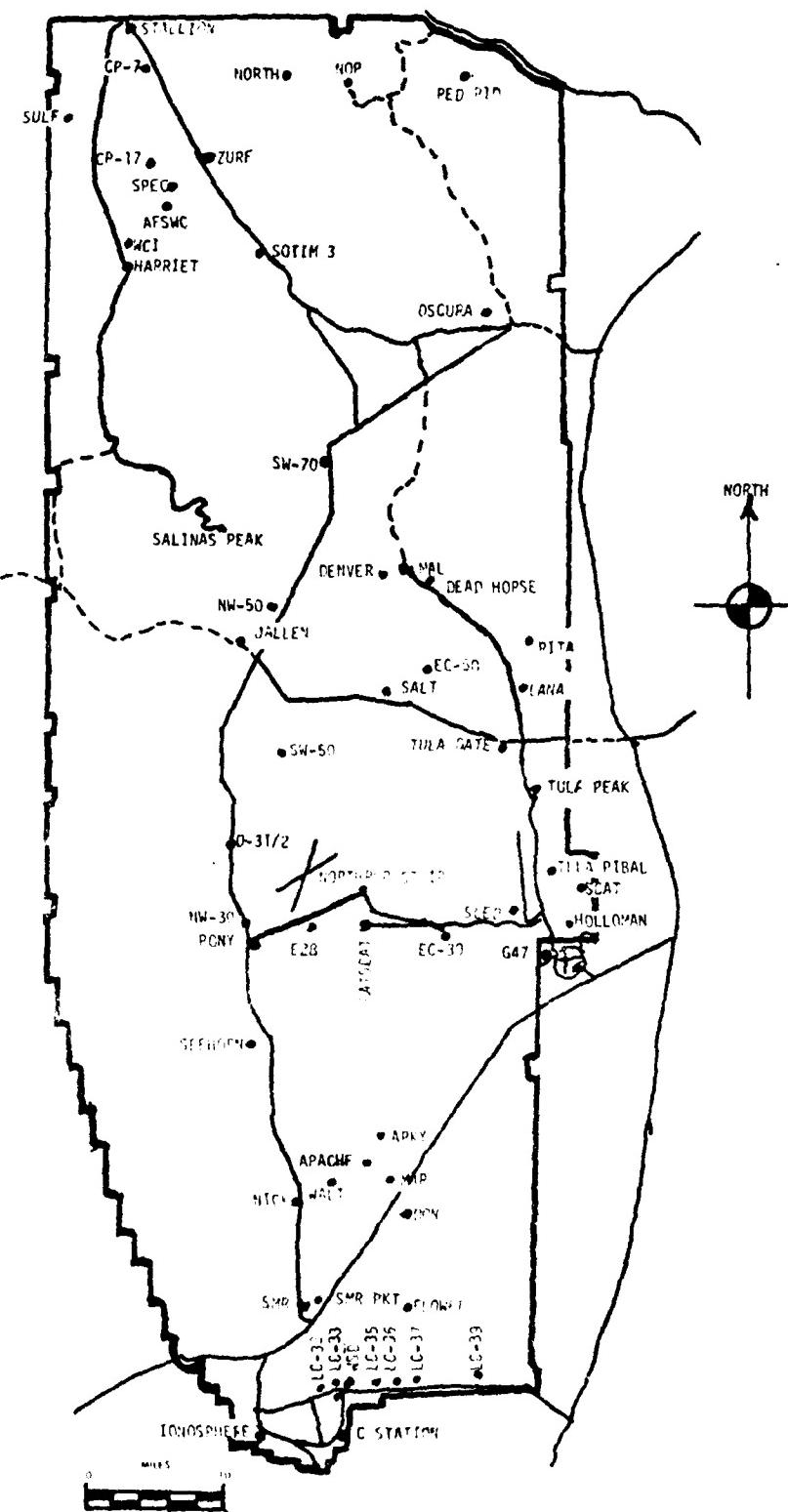
LC-39 3 KM

(2) Air structure data (rawinsonde) were collected at the following Met Sites. Data were collected from surface to high as possible in 500-feet increments.

SITE AND TIME

WSD 1220 MST
SMR 1130 MST

WSMR METEOROLOGICAL SITES



PROJECT SURFACE OBSERVATIONS

TABLE 1

DATE 6 MONTH JAN YEAR 1981

TIME H M S	PRESSURE mb	TEMPERATURE °C	DEW POINT °C	RELATIVE HUMIDITY %	DENSITY gm/m ³	DIRECTION deg	WIND SPEED kts	CHARACTER	VISIBIL- ITY
1145	883.2	22.8	9.0	41			150	03	40

STATION LC-39

X= 530.938.82 Y= 186.564.96 H= 4.063.80

OBSTRUCTIONS TO VISIBILITY	CLOUDS			3RD LAYER			REMARKS		
	1st LAYER:	2nd LAYER	3rd LAYER	AMT	TYPE	HGT	AMT	TYPE	HGT
	1	SC	6,000	1	AC	12,000			

PSYCHROMETRIC COMPUTATION

TIME: MST	1145
DRY BULB TEMP.	22.8
WET BULB TEMP.	14.3
WET BULB DEP.	8.5
DEW POINT	9.0
RELATIVE HUMID.	41

PILOT BALLOON MEASURED WIND DATA

TABLE 2

RELEASED FROM LC-39

DATE 6 Nov 1981

TIME 1135 MST

COORDINATES (WSTM) X = 530,938.82 Y = 186,564.96 H = 4,063.80

$$\gamma = 186,564.96$$

H = 4,063.80

NOTE: WIND DIRECTIONS ARE REFERENCED TO _____.

HEIGHTS ARE METERS AGL X OR FEET AGL _____.

HEIGHT AGL	DIRECTION DEGREES	SPEED KNOTS
SFC	140	06
60	134	07
120	131	08
180	128	10
240	127	12
300	125	14
360	125	15
420	129	14
480	133	14
540	137	14
600	141	14
660	145	13
720	149	14
780	153	16
840	156	17
900	159	18
960	161	19
1020	162	21
1080	164	22
1140	165	24
1200	166	25
1260	166	27
1320	169	27
1380	171	27
1440	174	26
1500	177	26
1560	180	26
1620	183	25
1680	186	25
1740	190	24

PILOT BALLOON MEASURED WIND DATA

TABLE 3

RELEASED FROM LC-39

DATE 6 Nov 1981

TIME 1145 MST

COORDINATES (WSTM) X = **530,938.82** Y = **186, 564.96** H = **4, 063.80**

NOTE: WIND DIRECTIONS ARE REFERENCED TO _____.

HEIGHTS ARE METERS AGL X OR FEET AGL _____.

HEIGHT AGL	DIRECTION DEGREES	SPEED KNOTS
SFC	150	03
60	143	04
120	140	06
180	138	08
240	137	10
300	137	11
360	136	13
420	136	13
480	136	14
540	136	14
600	135	15
660	135	15
720	139	16
780	142	16
840	146	17
900	149	18
960	151	19
1020	156	20
1080	160	21
1140	163	22
1200	167	23
1260	169	25
1320	172	25
1380	175	24
1440	178	24
1500	181	24
1560	184	23
1620	186	22
1680	189	21
1740	192	20

TABLE 4

Launch and Impact Area Computer Met Messages
6 November 1981

WSD	1220 MST	SMR	1130 MST
METCM1324064		METCM1325064	
061230122884		061150122885	
00231010	29740884	00267006	29400885
01258013	29520874	01286009	29290875
02270014	29160849	02272013	29020849
03282012	28770810	03301010	28630810
04316022	28400763	04307014	28200763
05341018	28180718	05327027	28150718
06349019	27780676	06355020	27800676
07357023	27320635	07356022	27350635
08389022	26940597	08374023	26920596
09400023	26740560	09409023	26670560
10420026	26480525	10412029	26480525
11439030	26200492	11438030	26260492
12427040	25680446	12426042	25680446
13435050	24900390	13442051	24880390
14444050	24050339	14445052	23950339
15446056	23230294	15441058	23180293
16447060	22580253	16443061	22610253
17458048	22390218	17452056	22300217
18454040	21820187	18460040	21860186

STATION, ALTITUDE Surveyed feet MSL
C. NOV. 11 1960 HRS MST
ASCENSION NO. 64

SIGNIFICANT LEVEL DATA
SUN 0000084
WHT SANDS
TABLE 5

PRESSURE ALTITUDE MILLIBARS	DEUTERIUM ALTITUDE FEET	TEMPERATURE DEGREES CELSIUS	REL.HUM. PERCENT	
			AIR DEPTH DEGREES CELSIUS	DEPTHS CENTIMETERS
665.0	5750.0	-25.0	-5.0	51.0
670.0	4460.4	19.9	4.2	57.0
675.0	5042.1	17.2	2.4	59.0
680.0	5044.0	16.0	2.2	45.0
685.0	4426.3	10.3	0.8	50.0
690.0	5042.0	9.4	-0.9	44.0
695.0	6784.0	10.1	1.2	55.0
700.0	10424.0	5.9	-1.0	61.0
705.0	11240.7	6.2	-1.8	62.0
710.0	11471.0	6.2	-2.1	58.0
715.0	15068.4	-0.8	-7.1	62.0
720.0	13816.0	-2.3	-7.0	48.0
725.0	14229.0	-4.2	-12.4	44.0
730.0	14755.7	-4.3	-22.4	23.0
735.0	15201.7	-4.3	-19.0	29.0
740.0	17264.0	-6.1	-23.7	27.0
745.0	18071.0	-6.4	-27.8	23.0
750.0	19172.0	-10.4	-27.0	24.0
755.0	25021.0	-18.6	-33.3	26.0
760.0	24695.0	-22.3	-29.0	23.0
765.0	26102.0	-20.4	-30.4	64.0
770.0	26252.0	-27.1	-30.8	59.0
775.0	27447.0	-29.3	-40.3	54.0
780.0	27000.0	-35.0	-42.0	56.0
785.0	25018.2	-38.0	-45.0	44.0
790.0	31403.3	-39.0	-45.0	50.0
795.0	32025.0	-41.0		
800.0	34589.0	-47.0		
805.0	22466.0	-48.0		
810.0	55865.0	-47.0		
815.0	57526.0	-47.0		
820.0	40252.0	-47.0		
825.0	42494.0	-47.0		
830.0	45396.0	-47.0		
835.0	46613.0	-47.0		
840.0	46051.0	-47.0		
845.0	21367.0	-47.0		
850.0	242102.0	-47.0		
855.0	360511.0	-47.0		

STATION ALTITUDE 555.00 FEET PSD
2 AUG. 1961 1200 HRS PST
ASCENSION ISL. CAY

SIGNIFICANT LEVEL DATA

STATION 34
WHIT SANDS

GEODETIC COORDINATES
32°41'43" LAT DEG
106°37'33" LON DEG

TABLE 5 CONT.

PRESSURE (TORR) MILLIBARS MSL FTT	TEMPERATURE AT SURFACE DEGREES FAHRENHEIT	TEMPERATURE AIR AT 2 POINT DEGREES FAHRENHEIT	HUMIDITY PERCENT DEGREES FAHRENHEIT
20.8	54.92	-59.1	
19.0	53.52	-68.0	
29.4	64.02	-52.5	
22.0	67.02	-51.2	
20.0	61.02	-51.6	
20.8	53.62	-56.4	

STATION ALTITUDE 3494.00 FT ESL
OCTOBER 81 1200 HRS MST
ASCENSION NO. 004

UPPER AIR DATA
2100Z 2400Z
WHITE SANDS
TABLE 6

GEOPOTENTIAL	PRESSURE	TEMPERATURE	WIND DATA	INDEX
ALTITUDE	MM	AIR DEPTH	DIR/VEL	UP
METERS	MM	DEGREES CENTIGRADE	KNOTS	INTRACTION
2964.0	23.0	20.0	133.9	1.000260
4000.0	22.9	21.1	130.7	1.000268
4500.0	20.7	20.7	129.4	1.000267
5000.0	17.9	20.6	140.4	12.0
5500.0	15.9	20.6	111.4	14.4
6000.0	16.3	20.9	110.6	14.0
6220.0	14.0	22.3	110.6	14.0
6500.0	15.4	19.8	120.2	11.1
7000.0	16.5	19.0	106.4	10.0
7500.0	16.0	19.0	106.1	15.2
8000.0	16.4	19.0	104.6	14.0
8500.0	16.0	19.0	100.4	10.0
9000.0	16.2	19.4	100.1	10.0
9500.0	16.0	19.4	100.1	10.0
10000.0	16.2	19.7	100.1	10.0
10500.0	16.0	19.7	100.1	10.0
11000.0	16.0	19.7	100.1	10.0
11500.0	16.0	19.7	100.1	10.0
12000.0	16.0	19.7	100.1	10.0
12500.0	16.0	19.7	100.1	10.0
13000.0	16.0	19.7	100.1	10.0
13500.0	16.0	19.7	100.1	10.0
14000.0	16.0	19.7	100.1	10.0
14500.0	16.0	19.7	100.1	10.0
15000.0	16.0	19.7	100.1	10.0
15500.0	16.0	19.7	100.1	10.0
16000.0	16.0	19.7	100.1	10.0
16500.0	16.0	19.7	100.1	10.0
17000.0	16.0	19.7	100.1	10.0
17500.0	16.0	19.7	100.1	10.0
18000.0	16.0	19.7	100.1	10.0
18500.0	16.0	19.7	100.1	10.0
19000.0	16.0	19.7	100.1	10.0
19500.0	16.0	19.7	100.1	10.0
20000.0	16.0	19.7	100.1	10.0
20500.0	16.0	19.7	100.1	10.0
21000.0	16.0	19.7	100.1	10.0
21500.0	16.0	19.7	100.1	10.0
22000.0	16.0	19.7	100.1	10.0
22500.0	16.0	19.7	100.1	10.0
23000.0	16.0	19.7	100.1	10.0
23500.0	16.0	19.7	100.1	10.0
24000.0	16.0	19.7	100.1	10.0
24500.0	16.0	19.7	100.1	10.0
25000.0	16.0	19.7	100.1	10.0
25500.0	16.0	19.7	100.1	10.0
26000.0	16.0	19.7	100.1	10.0
26500.0	16.0	19.7	100.1	10.0
27000.0	16.0	19.7	100.1	10.0
27500.0	16.0	19.7	100.1	10.0
28000.0	16.0	19.7	100.1	10.0
28500.0	16.0	19.7	100.1	10.0
29000.0	16.0	19.7	100.1	10.0
29500.0	16.0	19.7	100.1	10.0
30000.0	16.0	19.7	100.1	10.0
30500.0	16.0	19.7	100.1	10.0
31000.0	16.0	19.7	100.1	10.0
31500.0	16.0	19.7	100.1	10.0
32000.0	16.0	19.7	100.1	10.0
32500.0	16.0	19.7	100.1	10.0
33000.0	16.0	19.7	100.1	10.0
33500.0	16.0	19.7	100.1	10.0
34000.0	16.0	19.7	100.1	10.0
34500.0	16.0	19.7	100.1	10.0
35000.0	16.0	19.7	100.1	10.0
35500.0	16.0	19.7	100.1	10.0
36000.0	16.0	19.7	100.1	10.0
36500.0	16.0	19.7	100.1	10.0
37000.0	16.0	19.7	100.1	10.0
37500.0	16.0	19.7	100.1	10.0
38000.0	16.0	19.7	100.1	10.0
38500.0	16.0	19.7	100.1	10.0
39000.0	16.0	19.7	100.1	10.0
39500.0	16.0	19.7	100.1	10.0
40000.0	16.0	19.7	100.1	10.0
40500.0	16.0	19.7	100.1	10.0
41000.0	16.0	19.7	100.1	10.0
41500.0	16.0	19.7	100.1	10.0
42000.0	16.0	19.7	100.1	10.0
42500.0	16.0	19.7	100.1	10.0
43000.0	16.0	19.7	100.1	10.0
43500.0	16.0	19.7	100.1	10.0
44000.0	16.0	19.7	100.1	10.0
44500.0	16.0	19.7	100.1	10.0
45000.0	16.0	19.7	100.1	10.0
45500.0	16.0	19.7	100.1	10.0
46000.0	16.0	19.7	100.1	10.0
46500.0	16.0	19.7	100.1	10.0
47000.0	16.0	19.7	100.1	10.0
47500.0	16.0	19.7	100.1	10.0
48000.0	16.0	19.7	100.1	10.0
48500.0	16.0	19.7	100.1	10.0
49000.0	16.0	19.7	100.1	10.0
49500.0	16.0	19.7	100.1	10.0
50000.0	16.0	19.7	100.1	10.0
50500.0	16.0	19.7	100.1	10.0
51000.0	16.0	19.7	100.1	10.0
51500.0	16.0	19.7	100.1	10.0
52000.0	16.0	19.7	100.1	10.0
52500.0	16.0	19.7	100.1	10.0
53000.0	16.0	19.7	100.1	10.0
53500.0	16.0	19.7	100.1	10.0
54000.0	16.0	19.7	100.1	10.0
54500.0	16.0	19.7	100.1	10.0
55000.0	16.0	19.7	100.1	10.0
55500.0	16.0	19.7	100.1	10.0
56000.0	16.0	19.7	100.1	10.0
56500.0	16.0	19.7	100.1	10.0
57000.0	16.0	19.7	100.1	10.0
57500.0	16.0	19.7	100.1	10.0
58000.0	16.0	19.7	100.1	10.0
58500.0	16.0	19.7	100.1	10.0
59000.0	16.0	19.7	100.1	10.0
59500.0	16.0	19.7	100.1	10.0
60000.0	16.0	19.7	100.1	10.0
60500.0	16.0	19.7	100.1	10.0
61000.0	16.0	19.7	100.1	10.0
61500.0	16.0	19.7	100.1	10.0
62000.0	16.0	19.7	100.1	10.0
62500.0	16.0	19.7	100.1	10.0
63000.0	16.0	19.7	100.1	10.0
63500.0	16.0	19.7	100.1	10.0
64000.0	16.0	19.7	100.1	10.0
64500.0	16.0	19.7	100.1	10.0
65000.0	16.0	19.7	100.1	10.0
65500.0	16.0	19.7	100.1	10.0
66000.0	16.0	19.7	100.1	10.0
66500.0	16.0	19.7	100.1	10.0
67000.0	16.0	19.7	100.1	10.0
67500.0	16.0	19.7	100.1	10.0
68000.0	16.0	19.7	100.1	10.0
68500.0	16.0	19.7	100.1	10.0
69000.0	16.0	19.7	100.1	10.0
69500.0	16.0	19.7	100.1	10.0
70000.0	16.0	19.7	100.1	10.0
70500.0	16.0	19.7	100.1	10.0
71000.0	16.0	19.7	100.1	10.0
71500.0	16.0	19.7	100.1	10.0
72000.0	16.0	19.7	100.1	10.0
72500.0	16.0	19.7	100.1	10.0
73000.0	16.0	19.7	100.1	10.0
73500.0	16.0	19.7	100.1	10.0
74000.0	16.0	19.7	100.1	10.0
74500.0	16.0	19.7	100.1	10.0
75000.0	16.0	19.7	100.1	10.0
75500.0	16.0	19.7	100.1	10.0
76000.0	16.0	19.7	100.1	10.0
76500.0	16.0	19.7	100.1	10.0
77000.0	16.0	19.7	100.1	10.0
77500.0	16.0	19.7	100.1	10.0
78000.0	16.0	19.7	100.1	10.0
78500.0	16.0	19.7	100.1	10.0
79000.0	16.0	19.7	100.1	10.0
79500.0	16.0	19.7	100.1	10.0
80000.0	16.0	19.7	100.1	10.0
80500.0	16.0	19.7	100.1	10.0
81000.0	16.0	19.7	100.1	10.0
81500.0	16.0	19.7	100.1	10.0
82000.0	16.0	19.7	100.1	10.0
82500.0	16.0	19.7	100.1	10.0
83000.0	16.0	19.7	100.1	10.0
83500.0	16.0	19.7	100.1	10.0
84000.0	16.0	19.7	100.1	10.0
84500.0	16.0	19.7	100.1	10.0
85000.0	16.0	19.7	100.1	10.0
85500.0	16.0	19.7	100.1	10.0
86000.0	16.0	19.7	100.1	10.0
86500.0	16.0	19.7	100.1	10.0
87000.0	16.0	19.7	100.1	10.0
87500.0	16.0	19.7	100.1	10.0
88000.0	16.0	19.7	100.1	10.0
88500.0	16.0	19.7	100.1	10.0
89000.0	16.0	19.7	100.1	10.0
89500.0	16.0	19.7	100.1	10.0
90000.0	16.0	19.7	100.1	10.0
90500.0	16.0	19.7	100.1	10.0
91000.0	16.0	19.7	100.1	10.0
91500.0	16.0	19.7	100.1	10.0
92000.0	16.0	19.7	100.1	10.0
92500.0	16.0	19.7	100.1	10.0
93000.0	16.0	19.7	100.1	10.0
93500.0	16.0	19.7	100.1	10.0
94000.0	16.0	19.7	100.1	10.0
94500.0	16.0	19.7	100.1	10.0
95000.0	16.0	19.7	100.1	10.0
95500.0	16.0	19.7	100.1	10.0
96000.0	16.0	19.7	100.1	10.0
96500.0	16.0	19.7	100.1	10.0
97000.0	16.0	19.7	100.1	10.0
97500.0	16.0	19.7	100.1	10.0
98000.0	16.0	19.7	100.1	10.0
98500.0	16.0	19.7	100.1	10.0
99000.0	16.0	19.7	100.1	10.0
99500.0	16.0	19.7	100.1	10.0
100000.0	16.0	19.7	100.1	10.0

GEODETIC COORDINATES
25°40'00" LAT
106°37'00" LON

TEMPERATURE
DEPTHLIST
WIND DATA

DENSITY
PRESSURE
SOUND
KNOTS

WIND DIRECTION
DEGREES
KNOTS

WIND VELOCITY
KNOTS

WIND VELOCITY
KNOTS

WIND VELOCITY
KNOTS

STATION ALTITUDE 5940.00 FEET ASL
6 NOV. 61
ASCENSION NO. 004

UPPER AIR DATA
51000Z0606
WHIT SANDS
TABLE 6 CONT.

GEODETIC COORDINATES
32°40.00' LAT 06°
116.37555 LON 06°

TEMPERATURE	PRESSURE	TEMPERATURE	AIR DENSITY	SPECIFIC	WIND DATA	INDEX
ALTITUDE	PSL FEET	DEGREES	DEGREES	RELATIVITY	SPD OF	OF
MMGS	MMGS	MMGS	MMGS	METER	DIRECTION	REFRACTION
25500.0	4200.0	-15.0	-51.0	55.4	241.0	42.0
24000.0	4110.0	-21.0	-50.0	41.0	242.0	44.1
24500.0	4130.0	-22.0	-49.0	40.0	244.0	46.6
25000.0	3950.0	-23.0	-48.0	39.0	246.5	50.0
25500.0	3920.0	-24.0	-47.0	38.0	248.0	52.1
26000.0	3880.0	-25.0	-46.0	37.0	249.0	53.5
26500.0	3840.0	-26.0	-45.0	36.0	250.0	55.1
27000.0	3800.0	-27.0	-44.0	35.0	251.0	56.1
27500.0	3760.0	-28.0	-43.0	34.0	252.0	57.4
28000.0	3720.0	-29.0	-42.0	33.0	253.0	58.8
28500.0	3680.0	-30.0	-41.0	32.0	254.0	59.9
29000.0	3640.0	-31.0	-40.0	31.0	255.0	60.2
29500.0	3600.0	-32.0	-39.0	30.0	256.0	60.4
30000.0	3560.0	-33.0	-38.0	29.0	257.0	60.6
30500.0	3520.0	-34.0	-37.0	28.0	258.0	60.7
31000.0	3480.0	-35.0	-36.0	27.0	259.0	60.8
31500.0	3440.0	-36.0	-35.0	26.0	260.0	60.8
32000.0	3400.0	-37.0	-34.0	25.0	261.0	60.8
32500.0	3360.0	-38.0	-33.0	24.0	262.0	60.8
33000.0	3320.0	-39.0	-32.0	23.0	263.0	60.8
33500.0	3280.0	-40.0	-31.0	22.0	264.0	60.8
34000.0	3240.0	-41.0	-30.0	21.0	265.0	60.8
34500.0	3200.0	-42.0	-29.0	20.0	266.0	60.8
35000.0	3160.0	-43.0	-28.0	19.0	267.0	60.8
35500.0	3120.0	-44.0	-27.0	18.0	268.0	60.8
36000.0	3080.0	-45.0	-26.0	17.0	269.0	60.8
36500.0	3040.0	-46.0	-25.0	16.0	270.0	60.8
37000.0	3000.0	-47.0	-24.0	15.0	271.0	60.8
37500.0	2960.0	-48.0	-23.0	14.0	272.0	60.8
38000.0	2920.0	-49.0	-22.0	13.0	273.0	60.8
38500.0	2880.0	-50.0	-21.0	12.0	274.0	60.8
39000.0	2840.0	-51.0	-20.0	11.0	275.0	60.8
39500.0	2800.0	-52.0	-19.0	10.0	276.0	60.8
40000.0	2760.0	-53.0	-18.0	9.0	277.0	60.8
40500.0	2720.0	-54.0	-17.0	8.0	278.0	60.8
41000.0	2680.0	-55.0	-16.0	7.0	279.0	60.8
41500.0	2640.0	-56.0	-15.0	6.0	280.0	60.8
42000.0	2600.0	-57.0	-14.0	5.0	281.0	60.8
42500.0	2560.0	-58.0	-13.0	4.0	282.0	60.8
43000.0	2520.0	-59.0	-12.0	3.0	283.0	60.8
43500.0	2480.0	-60.0	-11.0	2.0	284.0	60.8
44000.0	2440.0	-61.0	-10.0	1.0	285.0	60.8
44500.0	2400.0	-62.0	-09.0	0.0	286.0	60.8
45000.0	2360.0	-63.0	-08.0	-1.0	287.0	60.8
45500.0	2320.0	-64.0	-07.0	-2.0	288.0	60.8
46000.0	2280.0	-65.0	-06.0	-3.0	289.0	60.8
46500.0	2240.0	-66.0	-05.0	-4.0	290.0	60.8
47000.0	2200.0	-67.0	-04.0	-5.0	291.0	60.8
47500.0	2160.0	-68.0	-03.0	-6.0	292.0	60.8
48000.0	2120.0	-69.0	-02.0	-7.0	293.0	60.8
48500.0	2080.0	-70.0	-01.0	-8.0	294.0	60.8
49000.0	2040.0	-71.0	-00.0	-9.0	295.0	60.8
49500.0	2000.0	-72.0	-01.0	-10.0	296.0	60.8
50000.0	1960.0	-73.0	-02.0	-11.0	297.0	60.8
50500.0	1920.0	-74.0	-03.0	-12.0	298.0	60.8
51000.0	1880.0	-75.0	-04.0	-13.0	299.0	60.8
51500.0	1840.0	-76.0	-05.0	-14.0	300.0	60.8
52000.0	1800.0	-77.0	-06.0	-15.0	301.0	60.8
52500.0	1760.0	-78.0	-07.0	-16.0	302.0	60.8
53000.0	1720.0	-79.0	-08.0	-17.0	303.0	60.8
53500.0	1680.0	-80.0	-09.0	-18.0	304.0	60.8
54000.0	1640.0	-81.0	-10.0	-19.0	305.0	60.8
54500.0	1600.0	-82.0	-11.0	-20.0	306.0	60.8
55000.0	1560.0	-83.0	-12.0	-21.0	307.0	60.8
55500.0	1520.0	-84.0	-13.0	-22.0	308.0	60.8
56000.0	1480.0	-85.0	-14.0	-23.0	309.0	60.8
56500.0	1440.0	-86.0	-15.0	-24.0	310.0	60.8
57000.0	1400.0	-87.0	-16.0	-25.0	311.0	60.8
57500.0	1360.0	-88.0	-17.0	-26.0	312.0	60.8
58000.0	1320.0	-89.0	-18.0	-27.0	313.0	60.8
58500.0	1280.0	-90.0	-19.0	-28.0	314.0	60.8
59000.0	1240.0	-91.0	-20.0	-29.0	315.0	60.8
59500.0	1200.0	-92.0	-21.0	-30.0	316.0	60.8
60000.0	1160.0	-93.0	-22.0	-31.0	317.0	60.8
60500.0	1120.0	-94.0	-23.0	-32.0	318.0	60.8
61000.0	1080.0	-95.0	-24.0	-33.0	319.0	60.8
61500.0	1040.0	-96.0	-25.0	-34.0	320.0	60.8
62000.0	1000.0	-97.0	-26.0	-35.0	321.0	60.8
62500.0	960.0	-98.0	-27.0	-36.0	322.0	60.8
63000.0	920.0	-99.0	-28.0	-37.0	323.0	60.8
63500.0	880.0	-100.0	-29.0	-38.0	324.0	60.8
64000.0	840.0	-101.0	-30.0	-39.0	325.0	60.8
64500.0	800.0	-102.0	-31.0	-40.0	326.0	60.8
65000.0	760.0	-103.0	-32.0	-41.0	327.0	60.8
65500.0	720.0	-104.0	-33.0	-42.0	328.0	60.8
66000.0	680.0	-105.0	-34.0	-43.0	329.0	60.8
66500.0	640.0	-106.0	-35.0	-44.0	330.0	60.8
67000.0	600.0	-107.0	-36.0	-45.0	331.0	60.8
67500.0	560.0	-108.0	-37.0	-46.0	332.0	60.8
68000.0	520.0	-109.0	-38.0	-47.0	333.0	60.8
68500.0	480.0	-110.0	-39.0	-48.0	334.0	60.8
69000.0	440.0	-111.0	-40.0	-49.0	335.0	60.8
69500.0	400.0	-112.0	-41.0	-50.0	336.0	60.8
70000.0	360.0	-113.0	-42.0	-51.0	337.0	60.8
70500.0	320.0	-114.0	-43.0	-52.0	338.0	60.8
71000.0	280.0	-115.0	-44.0	-53.0	339.0	60.8
71500.0	240.0	-116.0	-45.0	-54.0	340.0	60.8
72000.0	200.0	-117.0	-46.0	-55.0	341.0	60.8
72500.0	160.0	-118.0	-47.0	-56.0	342.0	60.8
73000.0	120.0	-119.0	-48.0	-57.0	343.0	60.8
73500.0	80.0	-120.0	-49.0	-58.0	344.0	60.8
74000.0	40.0	-121.0	-50.0	-59.0	345.0	60.8
74500.0	0.0	-122.0	-51.0	-60.0	346.0	60.8

* AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 5420.0 FT MSL
O HUV. 21 1220 HRS MDT
ASCENSION NU. 000

UPPER AIR DATA
STATION NUMBER
WHITE SANDS
TABLE 6 CJW/T

GEODETIC COORDINATES
36°40'45" LAT DB
106°37'05" LON DG

DEPTH FT	PRESSURE ATLANTIC PSL FT	TEMPERATURE ATM DEGREES CENTIGRADE	DAMPING PERCENT	REL.HUM. PERCENT	SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND SPEED KNOTS	INDEX OF REFRACTION
42500.0	171.4	-76.0	270.3	272.7	204.0	32.5	1.000002	
44000.0	167.3	-76.0	270.4	272.8	205.0	31.0	1.000001	
44500.0	163.5	-76.4	264.7	271.4	205.5	30.7	1.000001	
45000.0	159.4	-76.6	259.1	270.4	204.9	30.7	1.000001	
45500.0	155.6	-76.4	255.6	269.0	204.0	31.4	1.000001	
46000.0	151.9	-76.0	248.5	268.6	205.5	32.1	1.000001	
46500.0	148.5	-76.1	243.1	267.6	204.0	32.6	1.000001	
47000.0	144.7	-71.7	238.3	266.0	204.9	33.5	1.000001	
47500.0	141.2	-62.6	235.5	265.1	207.4	33.8	1.000001	
48000.0	137.7	-63.5	228.9	264.1	209.9	34.0	1.000001	
48500.0	134.4	-64.0	223.8	263.4	212.3	33.0	1.000001	
49000.0	131.1	-64.4	218.6	262.0	215.2	32.0	1.000001	
49500.0	127.9	-64.4	215.9	262.4	216.0	28.4	1.000001	
50000.0	124.7	-62.3	209.7	261.7	217.9	24.3	1.000001	
50500.0	121.5	-60.0	204.6	260.7	216.6	22.4	1.000001	
51000.0	118.0	-67.4	200.7	259.0	217.1	22.9	1.000001	
51500.0	115.7	-65.2	196.9	258.0	217.7	24.1	1.000001	
52000.0	112.5	-60.5	193.2	255.6	204.8	27.5	1.000001	
52500.0	110.0	-70.4	188.8	254.9	202.7	30.9	1.000001	
53000.0	107.4	-70.0	164.3	254.2	202.5	29.8	1.000001	
53500.0	104.9	-69.4	159.9	254.1	201.9	28.4	1.000001	
54000.0	102.5	-70.5	155.7	255.7	201.5	25.7	1.000001	
54500.0	99.9	-71.5	151.5	255.6	201.4	22.4	1.000001	
55000.0	96.5	-72.0	147.0	252.0	201.8	19.3	1.000001	
55500.0	94.5	-72.0	164.7	251.0	200.2	16.0	1.000001	
56000.0	91.9	-73.0	159.9	251.1	214.3	16.0	1.000001	
56500.0	89.5	-71.4	155.7	255.6	201.5	25.7	1.000001	
57000.0	87.3	-71.5	151.5	255.6	201.4	22.4	1.000001	
57500.0	85.0	-72.0	147.0	252.0	201.8	19.3	1.000001	
58000.0	82.6	-72.0	164.7	254.1	201.4	16.0	1.000001	
58500.0	80.0	-69.1	159.9	255.7	201.5	25.7	1.000001	
59000.0	78.6	-69.0	156.3	255.4	204.1	17.4	1.000001	
59500.0	76.3	-74.0	152.1	249.7	217.5	18.1	1.000001	
60000.0	74.0	-69.0	148.0	250.0	217.5	18.4	1.000001	
60500.0	71.6	-68.6	144.7	250.0	217.5	18.4	1.000001	
61000.0	69.4	-68.6	141.4	250.2	217.5	18.4	1.000001	
61500.0	67.1	-65.1	138.0	250.0	217.5	18.4	1.000001	
62000.0	64.9	-67.5	134.7	250.0	217.5	18.4	1.000001	
62500.0	62.6	-67.5	131.4	250.0	217.5	18.4	1.000001	
63000.0	60.3	-67.5	128.1	250.0	217.5	18.4	1.000001	
63500.0	58.0	-67.5	124.8	250.0	217.5	18.4	1.000001	
64000.0	55.6	-67.5	121.5	250.0	217.5	18.4	1.000001	
64500.0	53.3	-67.5	118.2	250.0	217.5	18.4	1.000001	
65000.0	51.0	-67.5	114.9	250.0	217.5	18.4	1.000001	
65500.0	48.6	-67.5	111.6	250.0	217.5	18.4	1.000001	
66000.0	46.4	-67.5	108.3	250.0	217.5	18.4	1.000001	

STATION ALTITUDE 34700 FEET MSL
6 NOV. 1961 1200 HRS MSL
ASCENSION NO. 084

URPTK AIR DATA
STRUCTURE
WIND SAVDS
TABLE 6 CON'T

DEUTERIUM PRESSURE	TEMPERATURE	REL.HUM.	DENSITY	SPD OF	INDEX
ALTITUDE MSL FEET	DEPTHT MILLIBARS	PCTNT	GM/CUBIC	DIRECTION DEGREES(TIN)	OF REFRACTION
66000.0	660.0	-	105.8	260.1	1.000024
65000.0	61.6	-60.0	107.9	260.8	1.000025
64000.0	59.1	-62.4	100.1	261.5	1.000022
63000.0	56.5	-64.7	97.5	262.5	1.000023
62000.0	53.9	-67.0	94.0	263.2	1.000021
61000.0	51.3	-69.4	92.0	264.3	1.000020
60000.0	48.7	-71.7	89.4	265.2	1.000020
59000.0	46.1	-74.1	87.0	266.2	1.000019
58000.0	43.5	-76.4	84.8	267.0	1.000018
57000.0	40.9	-78.7	82.6	267.8	1.000017
56000.0	38.3	-81.0	80.4	268.5	1.000016
55000.0	35.7	-83.4	78.2	269.2	1.000015
54000.0	33.1	-85.7	76.0	269.9	1.000014
53000.0	30.5	-88.0	73.8	270.6	1.000013
52000.0	27.9	-90.3	71.6	271.3	1.000012
51000.0	25.3	-92.6	69.4	272.0	1.000011
50000.0	22.7	-94.9	67.2	272.7	1.000010
49000.0	20.1	-97.2	65.0	273.4	1.000009
48000.0	17.5	-99.5	62.8	274.1	1.000008
47000.0	14.9	-101.8	60.6	274.8	1.000007
46000.0	12.3	-104.1	58.4	275.5	1.000006
45000.0	9.7	-106.4	56.2	276.2	1.000005
44000.0	7.1	-108.7	54.0	276.9	1.000004
43000.0	4.5	-111.0	51.8	277.6	1.000003
42000.0	1.9	-113.3	49.6	278.3	1.000002
41000.0	-1.5	-115.6	47.4	279.0	1.000001
40000.0	-4.1	-117.9	45.2	279.7	1.000000
39000.0	-6.5	-119.2	43.0	280.4	1.000000
38000.0	-8.9	-120.5	40.8	281.1	1.000000
37000.0	-11.3	-121.8	38.6	281.8	1.000000
36000.0	-13.7	-123.1	36.4	282.5	1.000000
35000.0	-16.1	-124.4	34.2	283.2	1.000000
34000.0	-18.5	-125.7	32.0	283.9	1.000000
33000.0	-20.9	-127.0	30.8	284.6	1.000000
32000.0	-23.3	-128.3	28.6	285.3	1.000000
31000.0	-25.7	-129.6	26.4	286.0	1.000000
30000.0	-28.1	-130.9	24.2	286.7	1.000000

GEODETIC COORDINATES
52°40'45" LAT D_E
106°37'03" LON D_E

STATION ALTITUDE 3494.00 FEET MSL
C NOV. 81 1220 HRS MST
ASCENSION NO. 084

MANWATCH LEVELS
STANDARD
WHITE SANDS
TABLE 7

GEODETIC COORDINATES
32°40'04.5" LAT DGE
106°37'15.5" LON DGE

PRESSURE GEOPOTENTIAL MILLIBARS	FEET	TEMPERATURE		REL.HUM. PERCENT	WIND DATA	
		AIR DEGREES	DAMPING CENTIGRADE		DIRECTION DEGREES (IN)	SPEED KNOTS
600.0	2941.0	17.0	-5.4	54.	149.5	14.0
500.0	6761.0	12.0	1.3	47.	104.7	13.3
400.0	2541.0	9.8	6.7	53.	182.2	22.4
300.0	1041.0	5.9	-1.0	61.	195.9	10.3
200.0	1238.9	1.1	-5.9	60.	197.9	21.0
100.0	1440.1	-4.3	-12.1	62.	216.9	22.7
50.0	1672.4	-7.0	-22.6	26.	248.5	22.7
25.0	1914.9	-10.4	-27.0	24.	243.9	29.0
12.5	2178.2	-16.0	-31.2	23.	239.9	40.0
6.25	2465.0	-22.7	-29.6	23.	244.7	47.7
3.125	2782.1	-30.7	-41.1	53.	247.4	50.1
1.5625	3134.1	-39.0	-48.4	50.	231.4	53.9
0.78125	3554.7	-48.0	-	231.9	29.6	
0.390625	4012.9	-52.0	-	236.1	44.4	
0.1953125	4692.5	-56.8	-	269.3	33.9	
0.09765625	530.0	-60.5	-	263.8	32.4	
0.048828125	4961.6	-62.3	-	270.7	24.9	
0.0244140625	2419.0	-71.4	-	260.7	25.0	
0.01220703125	3649.4	-64.7	-	299.3	16.4	
0.006103515625	6119.4	-65.8	-	315.0	15.0	
0.0030517578125	6417.1	-65.5	-	278.7	20.0	
0.00152587890625	6783.5	-61.0	-	339.9	8.1	
0.000762939453125	7241.5	-59.4	-	250.4	6.0	

STATION, ALTITUDE 3440'. SU 1111 MST
G. HUV. 81 1130 HHS MST
ASCENSION NO. 60

TABLE 8
SIGNIFICANT LEVEL DATA
SIMULATIONS
 ΣM_K

PRESSURE GEOMETRIC IN MILLIBARS MSL FEET	ALTITUDE IN FEET	TEMPERATURE AIR DEPOINT DEGREES CENTIGRADE	TEMPERATURE AIR DEPOINT DEGREES CENTIGRADE
704.0	3997.0	26.1	26.0
685.0	4252.0	16.1	16.2
666.0	4506.0	6.5	6.0
647.0	4760.0	-0.5	0.0
628.0	5013.0	-6.5	-6.8
610.0	5266.0	-10.5	-10.8
592.0	5520.0	-14.0	-14.0
574.0	5773.0	-17.4	-17.4
556.0	6026.0	-20.8	-20.8
538.0	6279.0	-24.2	-24.2
520.0	6532.0	-27.6	-27.6
502.0	6785.0	-31.0	-31.0
484.0	7038.0	-34.4	-34.4
466.0	7291.0	-37.8	-37.8
448.0	7544.0	-41.2	-41.2
430.0	7797.0	-44.6	-44.6
412.0	8050.0	-48.0	-48.0
394.0	8303.0	-51.4	-51.4
376.0	8556.0	-54.8	-54.8
358.0	8809.0	-58.2	-58.2
340.0	9062.0	-61.6	-61.6
322.0	9315.0	-65.0	-65.0
304.0	9568.0	-68.4	-68.4
286.0	9821.0	-71.8	-71.8
268.0	10074.0	-75.2	-75.2
250.0	10327.0	-78.6	-78.6
232.0	10580.0	-82.0	-82.0
214.0	10833.0	-85.4	-85.4
196.0	11086.0	-88.8	-88.8
178.0	11339.0	-92.2	-92.2
160.0	11592.0	-95.6	-95.6
142.0	11845.0	-99.0	-99.0
124.0	12098.0	-102.4	-102.4
106.0	12351.0	-105.8	-105.8
88.0	12604.0	-109.2	-109.2
70.0	12857.0	-112.6	-112.6
52.0	13110.0	-116.0	-116.0
34.0	13363.0	-119.4	-119.4
16.0	13616.0	-122.8	-122.8
-2.0	13869.0	-126.2	-126.2
-18.0	14122.0	-129.6	-129.6
-36.0	14375.0	-133.0	-133.0
-54.0	14628.0	-136.4	-136.4
-72.0	14881.0	-140.0	-140.0
-90.0	15134.0	-143.6	-143.6
-108.0	15387.0	-147.2	-147.2
-126.0	15640.0	-150.8	-150.8
-144.0	15893.0	-154.4	-154.4
-162.0	16146.0	-158.0	-158.0
-180.0	16399.0	-161.6	-161.6
-198.0	16652.0	-165.2	-165.2
-216.0	16905.0	-168.8	-168.8
-234.0	17158.0	-172.4	-172.4
-252.0	17411.0	-176.0	-176.0
-270.0	17664.0	-179.6	-179.6
-288.0	17917.0	-183.2	-183.2
-306.0	18170.0	-186.8	-186.8
-324.0	18423.0	-190.4	-190.4
-342.0	18676.0	-194.0	-194.0
-360.0	18929.0	-197.6	-197.6
-378.0	19182.0	-201.2	-201.2
-396.0	19435.0	-204.8	-204.8
-414.0	19688.0	-208.4	-208.4
-432.0	19941.0	-212.0	-212.0
-450.0	20194.0	-215.6	-215.6
-468.0	20447.0	-219.2	-219.2
-486.0	20600.0	-222.8	-222.8
-504.0	20853.0	-226.4	-226.4
-522.0	21106.0	-230.0	-230.0
-540.0	21359.0	-233.6	-233.6
-558.0	21612.0	-237.2	-237.2
-576.0	21865.0	-240.8	-240.8
-594.0	22118.0	-244.4	-244.4
-612.0	22371.0	-248.0	-248.0
-630.0	22624.0	-251.6	-251.6
-648.0	22877.0	-255.2	-255.2
-666.0	23130.0	-258.8	-258.8
-684.0	23383.0	-262.4	-262.4
-702.0	23636.0	-266.0	-266.0
-720.0	23889.0	-269.6	-269.6
-738.0	24142.0	-273.2	-273.2
-756.0	24395.0	-276.8	-276.8
-774.0	24648.0	-280.4	-280.4
-792.0	24801.0	-284.0	-284.0
-810.0	25054.0	-287.6	-287.6
-828.0	25307.0	-291.2	-291.2
-846.0	25560.0	-294.8	-294.8
-864.0	25813.0	-298.4	-298.4
-882.0	26066.0	-302.0	-302.0
-900.0	26319.0	-305.6	-305.6
-918.0	26572.0	-309.2	-309.2
-936.0	26825.0	-312.8	-312.8
-954.0	27078.0	-316.4	-316.4
-972.0	27331.0	-320.0	-320.0
-990.0	27584.0	-323.6	-323.6
-1008.0	27837.0	-327.2	-327.2
-1026.0	28090.0	-330.8	-330.8
-1044.0	28343.0	-334.4	-334.4
-1062.0	28596.0	-338.0	-338.0
-1080.0	28849.0	-341.6	-341.6
-1098.0	29002.0	-345.2	-345.2
-1116.0	29255.0	-348.8	-348.8
-1134.0	29508.0	-352.4	-352.4
-1152.0	29761.0	-356.0	-356.0
-1170.0	30014.0	-359.6	-359.6
-1188.0	30267.0	-363.2	-363.2
-1206.0	30520.0	-366.8	-366.8
-1224.0	30773.0	-370.4	-370.4
-1242.0	31026.0	-374.0	-374.0
-1260.0	31279.0	-377.6	-377.6
-1278.0	31532.0	-381.2	-381.2
-1296.0	31785.0	-384.8	-384.8
-1314.0	32038.0	-388.4	-388.4
-1332.0	32291.0	-392.0	-392.0
-1350.0	32544.0	-395.6	-395.6
-1368.0	32797.0	-399.2	-399.2
-1386.0	33050.0	-402.8	-402.8
-1404.0	33303.0	-406.4	-406.4
-1422.0	33556.0	-410.0	-410.0
-1440.0	33809.0	-413.6	-413.6
-1458.0	34062.0	-417.2	-417.2
-1476.0	34315.0	-420.8	-420.8
-1494.0	34568.0	-424.4	-424.4
-1512.0	34821.0	-428.0	-428.0
-1530.0	35074.0	-431.6	-431.6
-1548.0	35327.0	-435.2	-435.2
-1566.0	35580.0	-438.8	-438.8
-1584.0	35833.0	-442.4	-442.4
-1602.0	36086.0	-446.0	-446.0
-1620.0	36339.0	-449.6	-449.6
-1638.0	36592.0	-453.2	-453.2
-1656.0	36845.0	-456.8	-456.8
-1674.0	37098.0	-460.4	-460.4
-1692.0	37351.0	-464.0	-464.0
-1710.0	37604.0	-467.6	-467.6
-1728.0	37857.0	-471.2	-471.2
-1746.0	38110.0	-474.8	-474.8
-1764.0	38363.0	-478.4	-478.4
-1782.0	38616.0	-482.0	-482.0
-1800.0	38869.0	-485.6	-485.6
-1818.0	39122.0	-489.2	-489.2
-1836.0	39375.0	-492.8	-492.8
-1854.0	39628.0	-496.4	-496.4
-1872.0	39881.0	-500.0	-500.0
-1890.0	40134.0	-503.6	-503.6
-1908.0	40387.0	-507.2	-507.2
-1926.0	40640.0	-510.8	-510.8
-1944.0	40893.0	-514.4	-514.4
-1962.0	41146.0	-518.0	-518.0
-1980.0	41399.0	-521.6	-521.6
-2000.0	41652.0	-525.2	-525.2
-2020.0	41905.0	-528.8	-528.8
-2040.0	42158.0	-532.4	-532.4
-2060.0	42411.0	-536.0	-536.0
-2080.0	42664.0	-539.6	-539.6
-2100.0	42917.0	-543.2	-543.2
-2120.0	43170.0	-546.8	-546.8
-2140.0	43423.0	-550.4	-550.4
-2160.0	43676.0	-554.0	-554.0
-2180.0	43929.0	-557.6	-557.6
-2200.0	44182.0	-561.2	-561.2
-2220.0	44435.0	-564.8	-564.8
-2240.0	44688.0	-568.4	-568.4
-2260.0	44941.0	-572.0	-572.0
-2280.0	45194.0	-575.6	-575.6
-2300.0	45447.0	-579.2	-579.2
-2320.0	45600.0	-582.8	-582.8
-2340.0	45853.0	-586.4	-586.4
-2360.0	46086.0	-590.0	-590.0
-2380.0	46339.0	-593.6	-593.6
-2400.0	46592.0	-597.2	-597.2
-2420.0	46845.0	-600.8	-600.8
-2440.0	47098.0	-604.4	-604.4
-2460.0	47351.0	-608.0	-608.0
-2480.0	47604.0	-611.6	-611.6
-2500.0	47857.0	-615.2	-615.2
-2520.0	48110.0	-618.8	-618.8
-2540.0	48363.0	-622.4	-622.4
-2560.0	48616.0	-626.0	-626.0
-2580.0	48869.0	-629.6	-629.6
-2600.0	49122.0	-633.2	-633.2
-2620.0	49375.0	-636.8	-636.8
-2640.0	49628.0	-640.4	-640.4
-2660.0	49881.0	-644.0	-644.0
-2680.0	50134.0	-647.6	-647.6
-2700.0	50387.0	-651.2	-651.2
-2720.0	50640.0	-654.8	-654.8
-2740.0	50893.0	-658.4	-658.4
-2760.0	51146.0	-662.0	-662.0
-2780.0	51399.0	-665.6	-665.6
-2800.0	51652.0	-669.2	-669.2
-2820.0	51905.0	-672.8	-672.8
-2840.0	52158.0	-676.4	-676.4
-2860.0	52411.0	-680.0	-680.0
-2880.0	52664.0	-683.6	-683.6
-2900.0	52917.0	-687.2	-687.2
-2920.0	53170.0	-690.8	-690.8
-2940.0	53423.0	-694.4	-694.4
-2960.0	53676.0	-698.0	-698.0
-2980.0	53929.0	-701.6	-701.6
-3000.0	54182.0	-705.2	-705.2
-3020.0	54435.0	-708.8	-708.8
-3040.0	54688.0	-712.4	-712.4
-3060.0	54941.0	-716.0	-716.0
-3080.0	55194.0	-719.6	-719.6
-3100.0	55447.0	-723.2	-723.2
-3120.0	55600.0	-726.8	-726.8
-3140.0	55853.0	-730.4	-730.4
-3160.0	56086.0	-734.0	-734.0
-3180.0	56339.0	-737.6	-737.6
-3200.0	56592.0	-741.2	-741.2
-3220.0	56845.0	-744.8	-744.8
-3240.0	57098.0	-748.4	-748.4
-3260.0	57351.0	-752.0	-752.0
-3280.0	57604.0	-755.6	-755.6
-3300.0	57857.0	-759.2	-759.2
-3320.0	58110.0	-762.8	-762.8
-3340.0	58363.0	-766.4	-766.4
-3360.0	58616.0	-770.0	-770.0
-3380.0	58869.0	-773.6	-773.6
-3400.0	59122.0	-777.2	-777.2
-3420.0	59375.0	-780.8	-780.8
-3440.0	59628.0	-784.4	-784.4
-3460.0	59881.0	-788.0	-788.0
-3480.0	60134.0	-791.6	-791.6
-3500.0	60387.0	-795.2	-795.2
-3520.0	60640.0	-798.8	-798.8
-3540.0	60893.0	-802.4	-802.4
-3560.0	61146.0	-806.0	-806.0
-3580.0	61399.0	-809.6	-809.6
-3600.0	61652.0	-813.2	-813.2
-3620.0	61905.0	-816.8	-816.8
-3640.0	62158.0	-820.4	-820.4
-3660.0	62411.0	-824.0	-824.0
-3680.0	62664.0	-827.6	-827.6
-3700.0	62917.0	-831.2	-831.2
-3720.0	63170.0	-834.8	-834.8
-3740.0	63423.0	-838.4	-838.4
-3760.0	63676.0	-842.0	-842.0
-3780.0	63929.0	-845.6	-845.6
-3800.0	64182.0	-849.2	-849.2
-3820.0	64435.0	-852.8	-852.8
-3840.0	64688.0	-856.4	-856.4
-3860.0	64941.0	-860.0	-860.0
-3880.0	65194.0	-863.6	-863.6
-3900.0	65447.0	-867.2	-867.2
-3920.0	65600.0	-870.8	-870.8
-3940.0	65853.0	-874.4	-874.4
-3960.0	66086.0	-878.0	-878.0
-3980.0	66339.0	-881.6	-881.6
-4000.0	66592.0	-885.2	-885.2
-4020.0	66845.0	-888.8	-888.8
-4040.0	67098.0	-892.4	-892.4
-4060.0	67351.0	-896.0	-896.0
-4080.0	67604.0	-900.6	-900.6
-4100.0	67857.0	-904.2	-904.2
-4120.0	68110.0	-907.8	-907.8
-4140.0	68363.0	-911.4	-911.4
-4160.0	68616.0	-915.0	-915.0
-4180.0	68869.0	-918.6	

STATION ALTITUDE 3447.0 FT FSL
C HGT. 81 1150 HRS PST
ASCENSION NO. 16

UPPER AIR DATA
STATION 000000000000
S M R
TABLE 9

GEODETIC COORDINATES
52° 46' S LAT DEG
106° 42' S LON DEG

GEOMETRIC PRESSURE ALITUDE PSL HGT	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL.HUM. PERCENT	DENSITY GR/LOGIC MEASURE	SPEED OF WIND DATA DIRECTION DEGREES (TN)	INDEX OF REFRACTION
3996.3	884.8	20.1	50.0	104.0	668.4	1.000272
4000.0	884.7	20.1	50.0	104.1	668.4	1.000272
4200.0	894.1	18.3	60.1	1032.1	660.3	7.7
4500.0	894.0	16.5	50.0	1023.2	664.2	1.000264
4800.0	894.0	15.0	50.0	1010.4	662.4	1.000259
5200.0	894.0	13.5	50.0	997.5	660.7	1.000253
5600.0	894.0	12.0	49.0	984.4	659.0	1.000252
6000.0	894.0	10.5	50.0	971.7	657.3	1.000248
6400.0	894.0	9.1	50.0	959.5	655.6	1.000244
6800.0	894.0	7.6	50.0	947.0	653.8	1.000241
7200.0	894.0	6.1	50.0	935.2	652.1	1.000238
7600.0	894.0	4.5	49.0	923.5	650.4	1.000235
8000.0	894.0	3.0	50.0	911.5	648.7	1.000231
8400.0	894.0	1.4	50.0	899.2	647.0	1.000229
8800.0	894.0	-0.1	50.0	881.1	635.3	1.000226
9200.0	894.0	-1.6	50.0	869.6	633.6	1.000223
9600.0	894.0	-3.1	49.0	857.0	632.0	1.000220
10000.0	894.0	-4.6	50.0	845.3	630.3	1.000215
10400.0	894.0	-5.1	49.0	833.7	628.6	1.000213
10800.0	894.0	-5.6	50.0	822.0	626.9	1.000210
11200.0	894.0	-6.1	50.0	810.5	625.2	1.000208
11600.0	894.0	-6.6	50.0	800.0	623.5	1.000205
12000.0	894.0	-7.1	49.0	788.5	621.8	1.000204
12400.0	894.0	-7.6	50.0	777.0	620.1	1.000201
12800.0	894.0	-8.1	50.0	765.5	618.4	1.000198
13200.0	894.0	-8.6	49.0	754.0	616.7	1.000195
13600.0	894.0	-9.1	50.0	742.5	615.0	1.000192
14000.0	894.0	-9.6	50.0	731.0	613.3	1.000189
14400.0	894.0	-10.1	49.0	719.5	611.6	1.000186
14800.0	894.0	-10.6	50.0	708.0	609.9	1.000184
15200.0	894.0	-11.1	50.0	696.5	608.2	1.000182
15600.0	894.0	-11.6	49.0	685.0	606.5	1.000180
16000.0	894.0	-12.1	50.0	673.5	604.8	1.000178
16400.0	894.0	-12.6	50.0	662.0	603.1	1.000176
16800.0	894.0	-13.1	49.0	650.5	601.4	1.000174
17200.0	894.0	-13.6	50.0	639.0	599.7	1.000172
17600.0	894.0	-14.1	50.0	627.5	598.0	1.000170
18000.0	894.0	-14.6	49.0	616.0	596.3	1.000168
18400.0	894.0	-15.1	50.0	604.5	594.6	1.000166
18800.0	894.0	-15.6	50.0	593.0	592.9	1.000164
19200.0	894.0	-16.1	49.0	581.5	591.2	1.000162
19600.0	894.0	-16.6	50.0	570.0	590.5	1.000160
20000.0	894.0	-17.1	50.0	558.5	589.8	1.000158
20400.0	894.0	-17.6	49.0	547.0	588.1	1.000156
20800.0	894.0	-18.1	50.0	535.5	587.4	1.000154

STATION ALTITUDE 3997.50 FEET MSL
O NOV. 81 1130 HRS MST
ANCLSIUN NNU. N8

UPPER AIR DATA
STANDARD
S M K

TABLE 9 CON'T

GEOMETRIC PRESSURE ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE DEGREES CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF WIND DATA KNOTS	DIRECTION DEGREES (TN)	INDEX OF REFRACTION
25000.0	420.3	-19.8	-24.0	43.3	57.0	020.3	1.000132
24000.0	411.7	-20.4	-25.0	44.0	508.5	018.9	1.000130
24500.0	405.4	-22.0	-28.7	54.7	559.3	017.5	1.000128
23000.0	395.1	-25.0	-29.0	61.3	521.0	015.5	1.000126
22500.0	387.0	-22.4	-30.0	61.0	543.8	015.4	1.000124
22000.0	380.4	-26.4	-33.9	60.9	534.8	016.1	1.000123
21500.0	376.9	-26.4	-33.9	60.9	525.9	016.0	1.000121
21000.0	371.1	-27.4	-31.7	56.4	525.9	010.8	1.000119
20500.0	365.4	-26.6	-34.0	54.3	517.8	004.0	1.000117
20000.0	359.7	-25.0	-34.0	54.0	510.1	007.1	1.000115
19500.0	354.0	-21.0	-40.0	54.0	502.4	005.1	1.000113
19000.0	348.0	-21.0	-42.1	52.4	494.9	004.0	1.000111
18500.0	342.3	-23.4	-42.4	52.4	486.4	003.4	1.000110
18000.0	335.4	-25.0	-44.7	56.1	480.7	001.3	1.000109
17500.0	326.1	-26.4	-45.0	57.0	479.7	000.7	1.000108
17000.0	317.8	-27.0	-46.0	54.4	472.1	297.7	1.000106
16500.0	312.1	-27.0	-47.3	50.3	466.3	296.0	1.000104
16000.0	305.3	-29.1	-46.0	54.1	454.5	296.0	1.000102
15500.0	298.6	-29.4	-44.4	55.0	445.9	295.0	1.000100
15000.0	292.0	-31.0	-46.0	54.3	438.8	295.0	1.000098
14500.0	285.3	-32.0	-46.0	52.3	431.8	291.3	1.000096
14000.0	278.7	-34.0	-46.0	50.3	424.8	291.3	1.000095
13500.0	272.0	-34.0	-46.0	48.0	417.8	287.7	1.000093
13000.0	269.0	-34.0	-46.0	46.0	410.2	286.4	1.000091
12500.0	265.7	-36.0	-46.0	45.0	401.4	286.0	1.000089
12000.0	260.0	-36.0	-46.0	43.0	392.3	286.0	1.000087
11500.0	256.0	-36.0	-46.0	42.0	384.5	284.9	1.000085
11000.0	251.4	-36.0	-46.0	41.0	376.5	284.5	1.000083
10500.0	247.9	-36.0	-46.0	40.0	368.0	284.0	1.000081
10000.0	244.0	-36.0	-46.0	39.0	360.0	283.5	1.000079
9500.0	239.5	-36.0	-46.0	38.0	352.1	284.1	1.000077
9000.0	236.4	-36.0	-46.0	37.0	345.2	285.4	1.000075
8500.0	232.1	-36.0	-46.0	36.0	347.1	285.0	1.000073
8000.0	227.9	-36.0	-46.0	35.0	342.0	284.6	1.000072
7500.0	223.5	-36.0	-46.0	34.0	338.0	284.0	1.000071
7000.0	219.0	-36.0	-46.0	33.0	334.7	283.6	1.000070
6500.0	214.6	-36.0	-46.0	32.0	331.0	283.2	1.000069
6000.0	210.0	-36.0	-46.0	31.0	327.5	282.8	1.000068
5500.0	205.4	-36.0	-46.0	30.0	324.0	282.4	1.000067
5000.0	200.8	-36.0	-46.0	29.0	320.5	282.0	1.000066
4500.0	196.0	-36.0	-46.0	28.0	317.0	281.6	1.000065
4000.0	191.4	-36.0	-46.0	27.0	313.5	281.2	1.000064
3500.0	186.8	-36.0	-46.0	26.0	310.0	280.8	1.000063
3000.0	182.0	-36.0	-46.0	25.0	306.5	280.4	1.000062
2500.0	177.4	-36.0	-46.0	24.0	303.0	280.0	1.000061
2000.0	172.8	-36.0	-46.0	23.0	299.5	279.6	1.000060
1500.0	168.0	-36.0	-46.0	22.0	296.0	279.2	1.000059
1000.0	163.2	-36.0	-46.0	21.0	292.5	278.8	1.000058
500.0	158.4	-36.0	-46.0	20.0	289.0	278.4	1.000057
0	153.6	-36.0	-46.0	19.0	285.5	278.0	1.000056

** AT LEAST ONE ASSIMILATED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 3447.0 FEET MSL
6 NOV. 81 1150 HRS PST
ASCENSION NO. 2d

UPPER AIR DATA
TABLE 9 CON'T

GEOPHYSIC PRESSURE ALTITUDE MSL FEET	TEMPERATURE AIR DEWPONT DEGREES MILLIBARS	REL.HUM. PERCENT	SPEED OF WIND KNOTS	WIND DATA DEGREES (°K)	INDEX OF REFRACTION
4520.0	171.3 /	26.7	275.1	268.0	1.00001
4400.0	167.4 /	26.0	272.0	268.9	1.00001
4450.0	165.2 /	25.5	264.6	261.0	1.00001
4450.0	164.5 /	25.1	259.5	264.7	1.00001
4450.0	164.2 /	24.7	254.0	268.4	1.00001
4450.0	163.8 /	24.4	254.0	268.7	1.00001
4450.0	161.8 /	24.0	267.0	268.9	1.00001

GEODETIC COORDINATES
32.48034 LAT DEG
106.42507 LON DEG

STATION ALTITUDE 5447.50 FEET MSL
6 NOV. 81 HHS MST
ASCENSION NO. 88

MANUFACTURED LEVELS
STATION NUMBER
S M R
TABLE 10

GEODETIC COORDINATES
32°46.5' LAT DEG
106°43.5' LON DEG

PRESSURE (EQUIVALENT MILLIBARS)	ELEV. FEET	TEMPERATURE			WIND DATA DEGREES (TM)	SPEED KNOTS
		Degrees	AIR DEWPNT	HUMIDITY PERCENT		
5122.0	5122.	16.1	2.9	41.	154.1	9.0
5000.0	6745.	11.2	1.5	51.	165.1	9.4
4888.0	6222.	7.3	-2.6	49.	176.8	9.4
4776.0	10414.	6.3	-0.2	62.	191.7	11.3
4664.0	12595.	1.2	-4.7	64.	199.5	11.3
4552.0	14489.	-4.2	-16.2	55.	209.5	11.3
4440.0	16375.	-7.0	-25.6	60.	231.9	12.4
4328.0	19153.	-9.8	-27.4	22.	240.6	12.0
4216.0	21704.	-15.9	-29.7	29.	259.0	12.5
4104.0	24662.	-22.5	-24.6	57.	248.0	12.8
3992.0	27825.	-31.0	-41.8	55.	248.0	12.0
3880.0	31959.	-39.4	-50.0	51.	249.2	12.0
3768.0	35556.	-46.9	-46.9	248.0	63.0	
3656.0	40151.	-52.7	-52.7	253.3	48.7	
3544.0	44734.	-56.2	-56.2	265.6	34.0	
3432.0	46116.	-61.1				